

REMARKS/ARGUMENTS

In Response to the Office Action dated June 13, 2007, Applicant respectfully requests reconsideration. Claims 63 and 69 have been canceled without prejudice, leaving claims 52-62, 64-68, and 70-78 pending.

Claim Rejections Under 35 U.S.C. §102

Claims 52-55, 57 and 74-75 stand rejected under 35 U.S.C. § 102(b) as being anticipated by US Pat. No. 5,826,432 (Ledbetter). Alternatively, claims 52 and 56 are rejected under 35 U.S.C. § 102(b) as being anticipated by Ledbetter under an alternative application of Ledbetter to the claims.

Applicant respectfully asserts that independent claim 52, and claims 53-55, 57, and 74-75 are patentable over Ledbetter under any reading of Ledbetter. Ledbetter discusses a blast chiller that includes a fan 170 that forces air into a high pressure chamber 190 as directed by a turning vane 174. FIGS. 4, 12A-12B, col. 7, l. 67 - col. 8, l. 2. The fan 170 blows air horizontally across the top of a ceiling plate 195 before being directed vertically downward by the turning vane 174. Id. and col. 5, ll. 63 - 65. The fan 170 is vertically displaced relative to the high pressure cavity 190, requiring air to be directed vertically into the cavity 190. Claim 52, however, recites a system including a cabinet sized for housing a vertical array of heat-producing units where the system includes a divider wall defining a first inlet to a first plenum defined by a shell and the divider wall, and a cooling mechanism that includes an impeller array of vertically arranged impellers, where the impellers impel a substantially uniform curtain of gas substantially horizontally during an entire circulation of the gas through an equipment chamber and a heat exchanger chamber of the cabinet. Ledbetter discusses using a fan to blow air horizontally and vertically downward, and to draw air horizontally and vertically upward due to low pressure induced by the fan. Ledbetter does not teach, disclose, or suggest at least the recited impellers arranged as recited. For at least these reasons, independent claim 52 and claims 53-55, 57, and 74-75, that depend from claim 52, are patentable over Ledbetter.

Further, the Examiner cited US Pat. No. 5,952,842 (Fujimoto), and in particular FIG. 5 of Fujimoto, for teaching horizontal air flow. Ledbetter, however, teaches away from a combination with Fujimoto. Fujimoto shows blowing air directly from fans 36, 37 into semiconductor circuit boards 84, 85, 86, 87 (FIG. 5). Ledbetter specifically teaches away from doing this, noting that the "fan 170 is situated such that it does not blow directly into the spaces 164 between the trays 163." Col. 7, ll. 33-35. Even ignoring this aspect of Fujimoto, Ledbetter teaches away from using horizontal air flow by specifically discussing that the vertical displacement of the fan 170 relative to the trays 163 is purposeful to help produce desired airflow. In particular, Ledbetter noted that "by being placed above the rack 162, and disposed to one side of the chamber, the air out of the fan is allowed sufficient space to develop and close out its initial vorticity." Col. 7, ll. 35-37. Ledbetter thus discusses that disposing the fan 170 above the trays 163 is crucial in order to allow the air from the fan 170 sufficient travel distance before reaching the trays 163. Ledbetter thus teaches away from horizontal air flow, and thus teaches away from a combination of Ledbetter and FIG. 5 of Fujimoto. Lastly, a combination of Fujimoto and Ledbetter still does not include the recited vertically arranged impellers that impel gas substantially horizontally during an entire circulation of the gas through an equipment chamber and a heat exchanger chamber.

Applicant also respectfully asserts that claim 75 is patentable in view of Ledbetter for further reasons. Claim 75 depends from claim 52 and recites a door configured to provide selective access to the heat-producing units based on at least one of an environmental compatibility inside and outside the cabinet, and whether an outer enclosure around the cabinet is closed. The Office Action notes that Ledbetter shows a door 210 in FIG. 7 and cites col. 9, ll. 47-63 and FIG. 11A. The cited text, however, discusses that a desired product temperature can be set. FIG. 11A shows a control panel with chamber temperature, product temperature, and chill time and temperature. Neither the cited text nor FIG. 11A teaches, discloses, or suggests that the door 210 is configured to provide selective access based on environmental compatibility inside and outside the cabinet, or whether an outer enclosure around the cabinet is closed.

Applicant respectfully asserts that claim 75 is patentable in view of Ledbetter for these further reasons.

Claim Rejections Under 35 U.S.C. §103

Claims 58-63 and 68-73

Claims 58-63 and 68-73 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over US Pat. No. 5,826,432 (Ledbetter) in view of US Pat. No. 5,952,842 (Fujimoto). Claims 63 and 69 have been canceled without prejudice, rendering the rejections of these claims moot. Applicant respectfully asserts that claims 58-63 and 68-73, that depend from claim 52, are patentable over Ledbetter in view of Fujimoto for at least the reasons discussed above. Further, claim 71 recites a mechanism-access door configured to provide access to the mechanism chamber without providing access to the equipment chamber. The doors 701a and 701b shown in FIG. 16 identified in the Office Action, regarding previous claim 71, provide access to either end of a single chamber, but do not provide access to the mechanism chamber without providing access to the equipment chamber as recited. Claim 72 recites an equipment-access door in addition to the mechanism-access door, and further recites that these doors have independent locks and are each capable of permitting access to only one of the equipment and the mechanism chambers, respectively. The doors 701a and 701b provide "multiple points of access to the blast chiller chamber." Col. 15, ll. 22-23. These doors do not permit access to only one of an equipment chamber and a mechanism chamber, respectively, as recited. For at least these further reasons, claims 71 and 72 are patentable over Ledbetter and Fujimoto.

Claim 64

Dependent claim 64 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over US Pat. No. 5,826,432 (Ledbetter) in view of Fujimoto in further in view of US Pat. No. 6,104,003 (Jones). Applicant respectfully asserts that claim 64, that depends from claim 52, is patentable over Ledbetter in view of Fujimoto in view of Jones for at least the reasons discussed above.

Claims 65-66

Dependent claims 65-66 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over US Pat. No. 5,826,432 (Ledbetter) in view of Fujimoto and further in view of US Pat. No. 3,387,648 (Ward). Applicant respectfully asserts that claims 65-66, that depend from claim 52, are patentable over Ledbetter in view of Fujimoto in view of Ward for at least the reasons discussed above.

Claim 67

Dependent claim 67 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over US Pat. No. 5,826,432 (Ledbetter) in view of Fujimoto and further in view of US Pat. No. 6,302,147 (Rose). Applicant respectfully asserts that claim 67, that depends from claim 52, is patentable over Ledbetter in view of Fujimoto in view of Rose for at least the reasons discussed above.

Claims 76-78

Dependent claims 76-78 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over US Pat. No. 5,826,432 (Ledbetter) in view of Fujimoto and further in view of Applicant's admitted prior Art FIG. 1. Applicant respectfully asserts that claims 76-78, that depend from claim 52, are patentable over Ledbetter in view of Fujimoto in view of Applicant's FIG. 1 for at least the reasons discussed above.

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Amdt. dated October 15, 2007
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Examining Group 3749


PATENT

CONCLUSION

In view of the foregoing, Applicant believes all claims now pending in this Application are in condition for allowance and an action to that end is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 858-350-6100.

Respectfully submitted,


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